

**Remarks**

Although the Examiner indicated that the figures originally filed with the application are acceptable, applicant notes that Figures 1-3 include hand drawn notations and lines that are not uniform, further the remaining figures have been scanned, reducing the contrast available for reproduction. Applicant respectfully submits five pages of formalized replacement drawing sheets for figures 1-5. No new matter has been added.

The Examiner rejected claims 1, 2, 4-6 and 9-19 under 35 U.S.C. 103(a) as unpatentable over *Kildal* in view of *Tubbs*. The Examiner admits that "*Kildal* does not teach that the inward facing edge (of the conductive ring) extends inward along the radome at least to an inner diameter of a distal end of a main reflector of the reflector antenna" and supplies *Tubbs* therefore, citing a radome 126 and ring 14 (OA page 2, number 2).

*Tubbs* discloses a rotatable pillbox antenna fully enclosed within a protective enclosure formed by a lower casing 12 that mates with a radome 126. The radome 126 is attached to the antenna lower casing 12 by a band 14 (identified as "ring" by the Examiner). Plates 18 and 20, along with cylinder 22 together form a directional radiating cavity 24 which is rotatable within the protective enclosure. There is no "main reflector" dish to which the radome is attached, the directional radiating cavity 24 is the entire electrical structure for the *Tubbs* antenna. The radome 126 is attached only to the lower casing 12, which is purely structural and plays no part in the electrical performance of the antenna. Because the radiating cavity 24 is fully enclosed and rotatable without contacting either the radome 126 or lower casing 12, the radiating cavity 24 is plainly far within the inward edge of the conductive "ring" 14 identified by the Examiner. Applicant respectfully submits that, contrary to the Examiner's assertion, *Tubbs* fails to disclose, teach or suggest the claim limitation, admitted by the Examiner as missing from *Kildal*, i.e. the inward facing edge (of the conductive ring) extending inward along the radome at least to an inner

diameter of a distal end of a main reflector of the reflector antenna. Therefore, rejection of claims 1, 2, 4-6 and 9-19 under 35 U.S.C. 103(a) as unpatentable over *Kildal* in view of *Tubbs* is improper.

Further, the Examiner indicates that the required teaching-suggestion-motivation for combining the cited references is to make a stronger interconnection between the radome and the main reflector. The Examiner suggests that extending the retaining ring inward along the radome would make the interconnection between these components stronger. First, this basis for the combination appears nowhere in either cited reference. The ring 51 in *Kildal* supports the thin sheet of the radome 50, it does not by itself retain the radome upon the reflector. Second, one skilled in the art recognizes that the addition of inward facing retaining lips / inward projecting edges on the ring 51 of the figure 2 embodiment of *Kildal* relied upon by the Examiner would destroy the electrical effect of the choke formed by the presence of the metal ring 51 spaced away from the rim by the metalized dielectric sheet curved into a ring 41. This is why *Kildal* references hooks used to retain the metal ring 51 and radome 50 upon the reflector dish outer flange (col. 6, ln 56-59). Third, even if the connection was made as suggested by the Examiner, this interconnection would only be as strong as the opposite portion coupling with the main reflector lip which, because the main reflector has a thickness, will always be outside of the inner diameter of the distal end of the main reflector. Therefore, extending the edge along the radome surface further inward than the portion contacting the main reflector has no purpose.

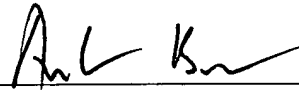
Applicant notes with appreciation the Examiner's indication that claims 7 and 8 would be allowable if placed into independent form. However, as indicated herein above, claim 1 from which claims 7 and 8 depend is currently believed to be in allowable form without further amendment. Therefore, dependent claims 7 and 8 thereof should also be allowable in their present form.

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Filed: 2/27/2004

**BABCOCK IP**

Having obviated each of the Examiners rejections, applicant respectfully requests that a notice of allowance be issued. Should the Examiner be inclined to issue an Official Action other than the notice of allowance, Applicant respectfully requests that the Examiner first contact Applicant by telephone at the number listed below.

Respectfully submitted,



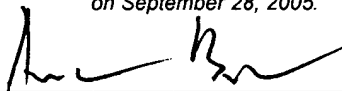
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/encl: replacement drawing sheets for figures 1-5 (5 pages)

**CERTIFICATE OF MAILING**

*I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:*  
*Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450*  
*on September 28, 2005.*



Andrew D. Babcock